LAND USE IN BEAVER COUNTY AS AFFECTED BY TENURE AND RESIDENCE OF LANDOWNER

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By

ERROL DELMAR HUNTER

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APPROVED

Peter Nelson
Chairman of Thesis Committee

Leonard Swanker
Member of Thesis Committee

Peter Nelson
Head, Department of Agricultural Economics

D. C. W. Intosh
Dean of Graduate School

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CHAPTER I. INTRODUCTION

Location, Type of Farming, and Climate

Beaver County is the easternmost of the Panhandle counties of Oklahoma. It is in the Southern High Plains and is a part of what was once known as No-Man's-Land. Roughly the northeast one-third of the county is in Type of Farming Area 2 which has been described as "Somewhat broken topography, some small grains, feed crops, livestock," while the remainder is in Type of Farming Area 1 which has been described as "Cash grain and livestock."[1/]

Over the Southern High Plains rainfall is one of the most important limiting factors in crop production. In fact, climate has been said to be the limiting factor in crop production in this area.[2/] Records of the Beaver City weather station may be taken as fairly representative of the area; however, local showers for which the plains country is famous are as prevalent in Beaver as in any other county.

Records of the Weather Bureau on precipitation for twenty-nine years (1909-1937 inclusive) indicate an average of 19.26 inches. The lowest precipitation for any one year was 10.03 inches in 1933, while the highest was

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1/ Peter Nelson, "Geographical Variability in Types of Farming in Oklahoma," Current Farm Economics, February, 1936, p. 4.

2/ George E. Turner, "County Agricultural Planning, Beaver County, Oklahoma--A Preliminary Report," Mimeographed Report of the Bureau of Agricultural Economics, June 1, 1938, p. 7.

in excess of thirty-two inches in 1923. During the twenty-nine years, seventeen have been below and eleven have been above the average. The period 1929-1937 inclusive was one of generally below average rainfall which doubtless had cumulative effects on crop production.

The data on precipitation show its erratic nature (Fig. 1); no period of years except that from 1933-1937 shows consistently above or below average precipitation, but rather shows one or two years above and the next year or two below. Crops may fail in this area even when the annual precipitation is above average due to its distribution over the growing season; similarly, good crops may be harvested when the rainfall is below normal for the same reason.

The annual mean temperature is about 57oF; however, sudden and wide variations of short duration from the mean are very common. The winters are usually short and mild but during the summer from June through September temperatures of 100 °F or higher may be expected.

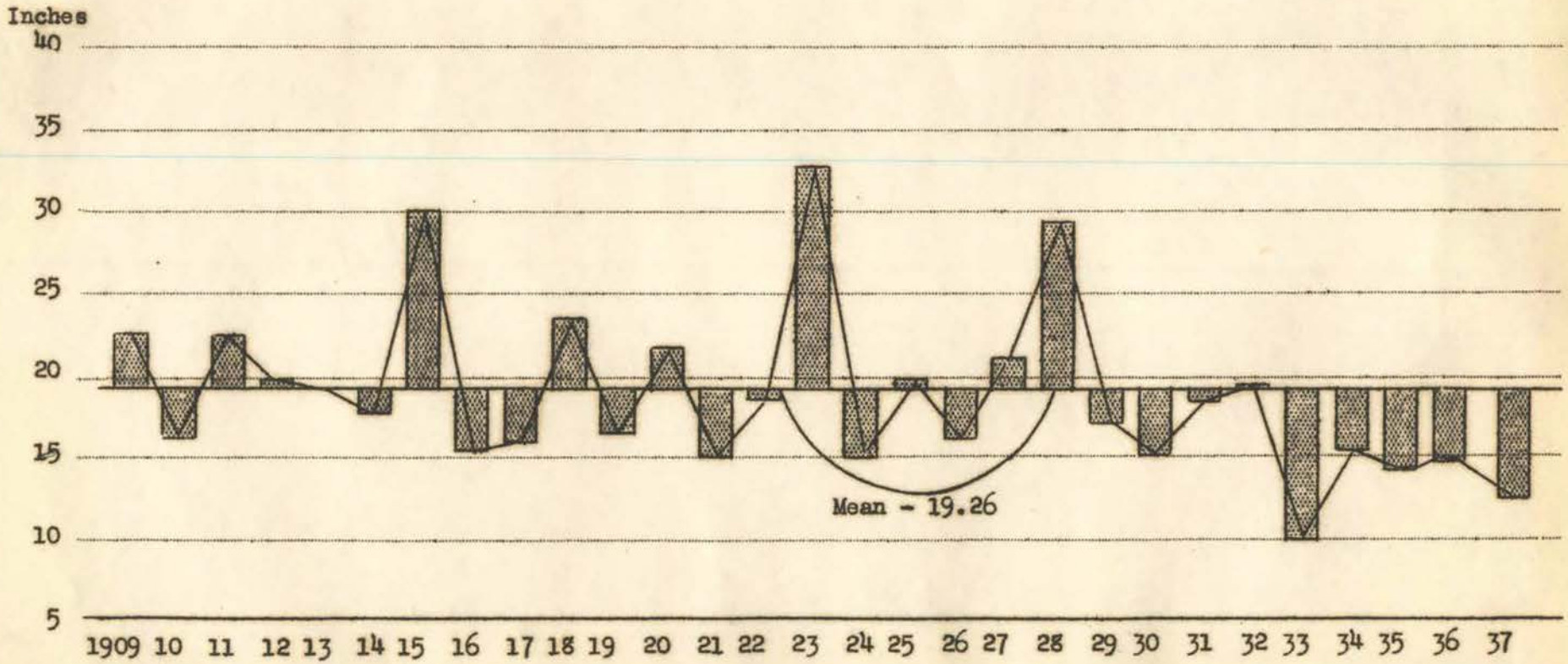
Beaver has an average growing season of 198 days with April 5 the average date of the last killing frost and October 20 the average date of the first in the fall. The latest recorded date of killing frost is May 7 and the earliest known date in the fall is September 26.

> "The mean seasonal evaporation (April to September inclusive) from an open water surface tank during the period from 1907 to 1919 inclusive was 52.08 inches. This is a high rate of evaporation. According to Kincer, an increase of three inches in seasonal evaporation is approximately equivalent to a decrease

Fig. 1

ANNUAL PRECIPITATION AT BEAVER
Beaver County, Oklahoma
1909-1937

Source: U. S. Weather Bureau



The annual rainfall at Beaver has been less for the nine years since 1928 than for any other nine-year period since 1909. Only in 1932 was it above the mean.

of one inch in annual rainfall." 3/

Settlement of Beaver County

"In 1879 the area now known as Beaver County, Oklahoma, was occupied by a few ranchers. The year 1879 was very dry--so dry in fact that the seed planted in the gardens failed to sprout. That winter was unusually mild with only two light snows, one on Thanksgiving Day and another during March. The year of 1880 was just as dry although a few spring showers fell which aided the grass considerably. The few people in the area at that time were thoroughly convinced that the county was adapted only to cattle production.

In 1882, the area for the most part had not been sectionized but township lines existed. A few squatters were coming in and settling on the banks of the rivers in dugouts and shanties. Those squatters did not own land nor was the land open for homesteading. However, many of these squatters had migrated to this area under the impression that they could obtain free land.

The years of 1884 to 1887 were favorable for crop production. More squatters migrated to the area during this period and, as a result, a considerable acreage of rice-corn was planted and good crops harvested. However, as no markets were available, the rice-corn sold as cheaply as ten cents per bushel. Rice-corn was a very poor forage because the stalk was too hard; however, it had to suffice as it was the only forage available. During this period there was some talk of taxation but no action was taken.

The winter of 1885 and 1886 was very severe. At one time the temperature reached twenty-eight degrees below zero. Squatters suffered considerably although some ranchers provided them with food. The ranchers themselves suffered a great loss in cattle. One rancher in the fall had 5,000 head of cattle and the following summer he had only 1,800. Many of the ranchers left the county after this disaster. There were several meetings held among the cattlemen and the squatters who wished to remain. As a result of these meetings, an agreement was made whereby the cattlemen would furnish the wire and the squatters would fence their fields.

3/ "Soils Survey of Potter County, Texas," Bureau of Chemistry and Soils, United States Department of Agriculture, Series 1929, No. 33, p. 7.

In 1887 crops were only fair. However, rice-corn was plentiful. In 1888 crops were good, but the squatters suffered because of prices. Rice-corn again sold for ten cents a bushel, and eggs sold for five cents a dozen. More squatters came into the area. More dugouts and shanties appeared. There was no work for the squatters, but during this time the cowmen prospered. This prosperity was envied by some of the squatters and as a result the range was fired. The firing of the range proved more disasterous to the squatters than it did to the ranchers, however, as the cattle stampeded into the sands on the river while most of the possessions of the squatters were lost in the fire. The fire occurred in March and spring rains revived the grass.

In 1888 castor beans, a drought resisting crop, appeared in the area. Although the crops were good, the results were a failure as little was known of the crop, and the harvest was inefficiently conducted. Castor beans proved to be poisonous to the cattle. This crop soon disappeared except for the small fields which were planted for spite by the squatters.

Throughout these years the squatter population was a fluctuating one. In 1889, when central Oklahoma was opened for homesteading there was a great decrease in the population of the Beaver county area. The squatters liquidated every asset and headed eastward. Little communities disappeared. Dugouts and shanties were abandoned. Most of the squatters who remained resided along the streams and they possessed small herds of cattle.

In 1890, the Cherokee Strip was reported to be opened for homesteading. The ranchers who were in this area were given a short notice to vacate. In many cases these ranchers sold cattle at a sacrifice to ranchers in the Beaver area. However, it was three years later before the strip was opened.

From 1890 to 1892, the Beaver area prospered. Cowboys married and began operating ranches of their own. This period marked the beginning of small ranches on which attention was given to feeding supplementary forage to cattle.

In 1892, the Beaver area was opened for homesteading. Again the population increased. New settlers came to the area with the intention of owning a farm. Some of these settlers homesteaded land, proved their claim, and mortgaged the land and left the county. Others sold their claims subject to the

preoption of $1.25 per acre. Some of the quarter sections sold as low as $200, some as high as $500 to $1,000. Some remained in the area and have prospered and failed with the vagaries of the country."4/

Absentee ownership of sizeable amounts of land at present may at least partially then be traceable to homestead policies in the area. Small farms (160 to 320 acres) generally became uneconomic units and if mortgaged to an absentee lender quite frequently had to be foreclosed to satisfy the debt. The amount of land operated by tenants and part owners has doubtless also been affected by the above.

Land Ownership in 1936

"Forty-seven per cent of the 1,156,211 acres of land in Beaver County is owned by nonresidents. Forty-five per cent is owned by residents, one per cent by corporations, five per cent by the county, two per cent by the state and less than one per cent by the Federal Government. This picture is somewhat alarming when one considers that less than thirty years ago most of the land was resident owned. Adjustments in ownership and land treatment present a problem in as much as many of the owners are difficult to find." 5/

The above data were sorted by farming areas in the county but unfortunately the areas that will be considered in this study do not coincide with them.

It has been pointed out that any program for rehabilitation of agriculture in the Southern Great Plains must take into account nonresident ownership of land and the

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4/ The information on the early settlement of Beaver County was given by Mr. and Mrs. W. M. Anshutz who have resided in the area since 1879, and is quoted from Turner, op. cit., pp. 4-7.

5/ Ibid, p. 18.

difficulties such tenure presents. Some of the things ascribed to nonresident ownership are doubtless incapable of substantiation while others are quite valid. 6/ The above article points out that there is very little difference between resident and nonresident ownership as to the amount of land plowed, erosion situation, abandonment of land, condition of farm improvements, and in tax delinquency when data representative of the whole area of the Southern Great Plains are studied.

Tenure Class of Farm Operators

> "Thirty-three per cent of the 1,617 farm operators are owners, thirty-five per cent are tenants, and thirty-two per cent are part owners. Although the percentage is not as high as in some sections of the country it must be recalled that a few years ago most of the operators were owners." 7/

The above picture of the tenure class of Beaver County farmers in 1936 does not, however, take into account the residence of the land owner.

> "----It might be well to consider outstanding evils of extensive tenancy as listed in the report of the Great Plains Committee. They are: (1) Tenancy's influence in determining the prevailing type of crops and farm practice, tenants being more likely to engage in grain farming than in stock raising; (2) The consequent influence in increasing the degree to which, under the climatic conditions, the land generally is subject to abuse; (3) The influence on each tenant to 'mine' his land and on the owner to consent thereto; and (4) Instability and insecurity of tenure which emphasize the other evils." 8/

6/ Morris Evans, "Nonresident Ownership--Evil or Scapegoat," Land Policy Review, July-August, 1938, pp. 15-20.

7/ Turner, op. cit., p. 13.

8/ Land Use Survey of the Southern Great Plains, Revised April, 1938, Mimeographed Publication, Division of Land Economics, Land Utilization Division, Bureau of Agricultural Economics, Amarillo, pp. 24, 25.

Purpose and Scope of This Study

The foregoing background, together with work done by the author with Land Use Planning Committees in the Oklahoma Panhandle--particularly in Beaver County--has indicated that there is a belief that tenant operation of land and nonresident ownership of land present very real problems in the area. From data gathered from Agricultural Adjustment Administration compliance forms in Beaver County for 1938 this study proposes to answer three questions which bear on the above:

1. Are there differences in land use as between resident and nonresident owned land? If so, what differences exist?[9/]

2. Are there differences in land use as between tenure classes of farm operators? If so, what are they?

3. Is the situation with respect to "1" and/or "2" above uniform over the county? If not, what are the variations?

Method and Procedure

From Agricultural Adjustment Administration compliance forms a random sample of land use data was taken for the

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9/ As used in this study a nonresident owner is one who lives outside the county while a resident owner is one who lives in Beaver County.

calendar year 1938.[10/] The data were tabulated according to operating units in each Land Use Problem Area (Fig. 2), and sorts, subsorts, and calculations made as indicated below:

1. The data for each Land Use Problem Area were sorted according to residence of landowner and tenure class of the farm operator and the percentage distribution of major land use and the percentage distribution of the use made of cropland calculated for each sort and subsort shown below:

   A. Land Owned by Resident Landlords
      (1) Operated by owners
      (2) Operated by Part Owners
         (a) Owned land
         (b) Rented land
      (3) Operated by tenants

   B. Land Owned by Nonresident Landlords
      (1) Operated by owners
      (2) Operated by part owners
         (a) Owned land
         (b) Rented land
      (3) Operated by tenants

10/ From forms filed alphabetically by Agricultural Adjustment Administration communities, which do not correspond with Land Use Problem Areas, the sample was taken by withdrawing such forms from the file in the order in which they stood. The data from each form were tabulated on a sheet for the particular Land Use Problem Area in which it fell. This process was repeated until for each area either the data from all farms in the area had been tabulated or until data from at least 150 farms had been tabulated.

2. Combinations of the data for each area were made to obtain county totals, and the percentage distribution of land uses obtained for each of the sorts and subsorts listed under "1" above.[11/]

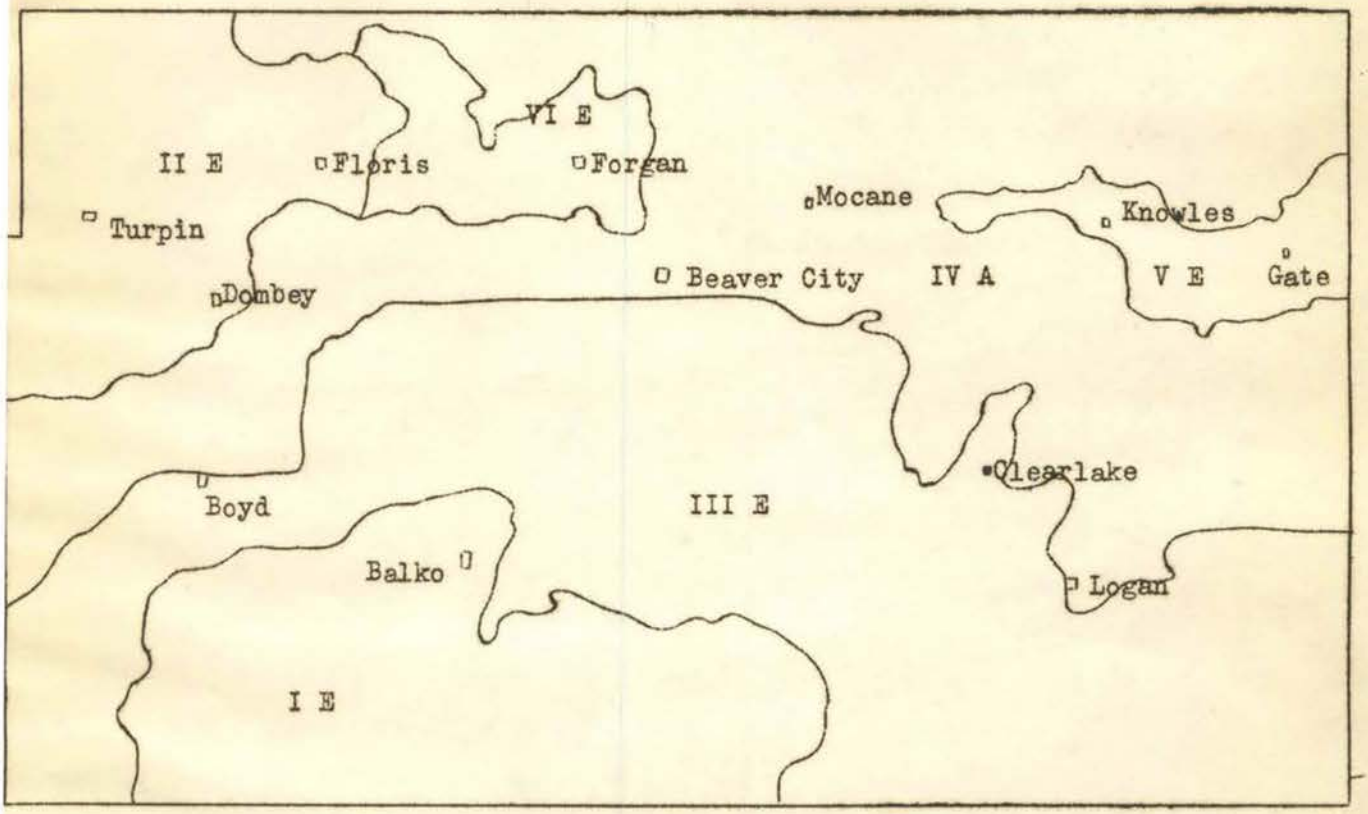
Through an analysis of the data in the manner just described the three questions posed will be answered.

Chapter II will deal with variations in land use as between resident and nonresident owned land; Chapter III will take into account the tenure class of the farm operator; and Chapter IV will set forth the situation with respect to the above as found in each of the six land use problem areas of the county. Chapter V will draw conclusions and point out any recommendations deemed necessary.

11/ The fullest cooperation of the County and State Offices of the Agricultural Adjustment Administration and the Agricultural Extension Service is gratefully acknowledged.

Fig. 2.

LAND USE PROBLEM AREA MAP OF BEAVER COUNTY



LEGEND - BEAVER COUNTY

Area

1E - Level, hard, heavy land---wheat farming
2E - Level to rolling sandy loam, wheat farming, some feed crops and livestock.
3E - Rolling, mixed land area--General farming, wheat, livestock
4A - Range area---Some farming along area boundaries--Level to rough, some sand, some loam, some hard land
5E - Level to rolling, sandy loam--some hard land---wheat farming and general farming.
6E - Sandy and sandy loam area, level to undulating--General farming, feed crops, livestock.

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CHAPTER II. RESIDENT AND NONRESIDENT OWNED LAND

With Beaver County as the universe, are there differences in land use as between resident and nonresident owned land?

For the 1938 crop year data were tabulated from Agricultural Adjustment Administration compliance forms for 439,286 acres out of the total of 1,160,320 acres as reported by the 1935 Census of Agriculture, or thirty-eight per cent of the total.

During 1936 a land use survey was made which included practically all of the land in Beaver County, and in which data on land ownership were obtained.[1/] As in the study made in 1936, the present study was made chiefly as a land use study but data on land ownership were also obtained. In the 1936 study the per cent of land owned by residents was calculated to be 44.6 as against 47.4 owned by nonresidents. In the present study the per cent of land owned by residents is calculated to be 72.5 as compared with 27.5 owned by nonresidents (Table 1). The present sample, unless a radical change in ownership took place during two years, obviously does not represent the proper proportion between resident and nonresident owned land. However, since this study deals with land use under a specific situation as compared with land use under another specific situation, if each situation is adequately

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1/ Turner, op. cit., Table XII.

sampled, valid comparisons can be made. Since the 1936 study covered over ninety-nine per cent of the land in the county, it may be assumed that it covered a like proportion of the land owned by residents and by nonresidents. The present study then when compared with the 1936 study shows that 61.7 per cent of the resident owned land and 22.0 per cent of the nonresident owned land is included which would seem to be an adequate sample (Table 1).

Table 1. Acres and Percentage of Land Owned by Residents and Nonresidents According to Studies Made in 1936 and 1938, Beaver County, Oklahoma

Owned by	Acreage		Percentage of Total		Per Cent 1938 is of 1936 Acres
	1936 2/	1938	1936 2/	1938	
Residents	515,456	318,411	44.6	72.5	61.7
Nonresidents	548,202	120,875	47.4	27.5	22.0
Total	1,156,211	439,286	100.0	100.0	37.9

Such a radical change in land ownership as would be indicated by Table 1 is highly improbable during the years between the two studies. The present study is representative of participation in the Agricultural Conservation Program and would seem to indicate that a much larger proportion of the land owned by resident owners was in the program as compared with nonresident owned land in 1938.

Major Uses of Land

A much smaller per cent of resident owned land is

2/ Ibid.

cropland and a much larger per cent range land than is the case with nonresident owned land. A slightly larger per cent of the resident owned land is pasture land and half as large a proportion is restoration land as compared with nonresident owned land. The proportion of land in the combined uses of cropland and range land is approximately the same for resident owned land as for nonresident owned land (Table 2).

Table 2. Per Cent of Resident and Nonresident Owned Land Devoted to Major Uses in 1938, Beaver County, Oklahoma

Owned by	Per Cent				
	Total 3/	Cropland	Pasture	Restoration 4/	Range
Resident	97.2	51.9	19.2	2.1	25.0
Nonresident	98.2	71.9	16.6	4.9	3.8

Use of Cropland

In 1938 a somewhat larger proportion of the cropland owned by resident owners was used for the production of crops generally grown for livestock feed (crops other than wheat) than was true of nonresident owned cropland; slightly smaller proportions of resident owned land were devoted to

3/ The totals of all items do not equal 100 per cent due to the fact that some minor uses are not included as one of the items but are included in the totals.

4/ Restoration land in 1938 was defined by the Agricultural Adjustment Administration as "Land which has been cropped at least once since January 1, 1930 but on which, because of its physical condition and texture and because of climatic conditions, a permanent vegetative cover should be restored."

wheat, summer fallow, and idle cropland than was true of nonresident owned land (Table 3).

Table 3. Percentage of Cropland Devoted to Specified Uses Resident and Nonresident Owned Land, Beaver County, Oklahoma, 1938

Land Owned by	The Per Cent of Cropland Devoted to						
	Wheat	Oats & Barley	Grain Sorghums	Sweet Sorghum & Millet	Sudan	Idle Cropland	Summer Fallow
Residents	46.9	1.5	12.2	11.2	5.5	2.2	9.1
Nonresidents	49.6	0.9	12.0	10.1	4.0	4.6	10.2

Wheat was by far the most important use of cropland, occupying between forty-five and fifty per cent of the cropland of both resident and nonresident owned land. Grain sorghums and sweet sorghums and millet were next in importance, followed by summer fallow. None of the other uses accounted for as much as ten per cent of the cropland (Table 3).

Summary

With Beaver County as the universe, there appear to be some differences in land use as between resident and nonresident owned land. A somewhat larger proportion of nonresident as compared with resident owned land was cropland in 1938, and a slightly larger per cent was restoration land while more of the resident owned land was pasture and range land.

Slightly less of the cropland owned by residents was

used for wheat and more for feed crops (oats, barley, sorghums, and sudan) than was true of nonresident owned cropland; slightly larger percentages of nonresident owned land was devoted to wheat, summer fallow, and idle land.

CHAPTER III. LAND USE AS BETWEEN TENURE CLASSES OF FARM OPERATORS IN THE SAME OWNERSHIP RESIDENCE CLASS

In Chapter II where the single factor of residence of land owner was considered certain characteristics were observed: Larger proportions of nonresident owned land were devoted to cropland and restoration while smaller proportions were pasture and range land than was true of resident owned land; a larger percentage of the cropland was devoted to wheat and less to other crops on the part of nonresident as compared with resident owned land.

In Chapter III the additional factor of the operator's tenure class will also be considered. By considering the two factors simultaneously for the whole of Beaver County, the effect of tenure of the operator on land use should be capable of observation.

Adequacy of Data

A comparison of the distribution of land operated by tenure classes as reflected by the present study and 1935 Census tabulations reveals some sizeable differences. The present study shows a much smaller proportion of land operated by others than owners and part owners and a much larger proportion operated by owners than the Census. The per cent of land operated by part owners is about the same in each. Within each tenure class, however, there appears to be an adequate sample to depict the way land was used by each in 1938 (Table 4). Particularly the sample would seem

Table 4. Acreage and Per Cent of Land Operated by Tenure Class of Operators, Beaver County, Oklahoma, 1935 Census of Agriculture and the Present Study

Land Operated By		1935 Census	Present Study	Per Cent Acres In This Study Are of Census
Owners -	Acres	316,150	191,531	60.6
	Per Cent	29.3	43.7	
Part Owners-	Acres	486,096	54,365	11.4
	Per Cent	45.1	44.0	
Tenants -	Acres	275,528	193,390	70.2
	Per Cent	25.6	12.3	
TOTAL -	Acres	1,077,774	439,286	31.5
	Per Cent	100.0	100.0	

to be adequate since the percentage distribution of various land uses within one tenure class will be compared with that within the other tenure classes, with no particular attention given to actual distribution of land use. (Table 4)

Major Uses of Land

Sizeable variations in land use as between tenure classes existed in 1938: About one-half as large a proportion of owner operated land was cropland as compared with tenant operated land, and a smaller percentage of the land owned and operated by part owners was cropland than was the case with land rented and operated by part owners. Tenant operated land followed about the same pattern as part owner rented land (Table 5).

The proportion of land devoted to pasture does not vary consistently with the operator's tenure class (Table 5).

Table 5. Per Cent of Land Devoted to Major Uses by Residence of the Owner and Tenure Class of the Operator, Beaver County, Oklahoma, 1938

Item	Owned	Per Cent Item is of Total Land Operated by			
		Owners	Part Owners	Rented	Tenants
Cropland	Resident	38.1	60.4	78.0	78.3
	Nonresident	31.4	65.8	80.0	77.4
Pasture	Resident	17.2	24.4	18.3	18.2
	Nonresident	19.7	28.9	15.8	16.0
Restoration	Resident	2.4	1.4	.7	.8
	Nonresident	20.2	2.7	1.9	3.0
Range	Resident	41.2	10.4	--	--
	Nonresident	25.2	--	--	--

In each case above it will be noted that a larger percentage of the rented land is devoted to cropland than is true of land owned by the operator (Table 5). Slightly larger proportions of land operated by owners is restoration than is true of land operated by tenants. (Table 5)

Range land is concentrated in the hands of owner operators with most of that in the hands of resident owners (Table 5).

Use of Cropland

The use made of nonresident owned and operated cropland, whether part or full owner, seems to be a striking departure from the use made of cropland in the other tenure and ownership classes: A sizeably smaller percentage of the cropland was devoted to wheat and a considerably larger proportion was idle than was true of any other class. The

combined totals of the two above uses were 58.5 per cent for nonresident owner operated land and 70.4 per cent for land owned and operated by nonresident part owners, while in none of the other tenure and resident classes did these combined totals equal fifty-three per cent (Table 6).

With the exception of the variations noted above, the use made of cropland was quite similar among the several tenure classes in 1938 (Table 6).

Table 6. Per Cent Distribution of Selected Uses of Cropland by Residence of the Owner and Tenure Class of the Operator, Beaver County, Oklahoma, 1938

Item	Owned	Per Cent Item is of Total Cropland on Land Operated by			
		Owners	Part Owners		Tenants
			Owned	Rented	
Wheat	Resident	47.1	46.8	46.3	47.7
	Nonresident	38.8	23.2	51.0	49.9
Idle Cropland	Resident	2.2	2.2	2.1	2.1
	Nonresident	19.7	47.2	2.2	4.9
Grain Sorghums	Resident	12.8	10.1	12.1	15.4
	Nonresident	9.5	1.8	11.9	13.4
Sweet Sorghums & Millet	Resident	10.6	12.8	10.4	11.9
	Nonresident	5.1	14.0	10.2	10.9
Summer Fallow	Resident	9.6	8.2	10.8	6.9
	Nonresident	5.7	3.9	10.8	9.8

Summary

The tenure class of the farm operator seems to exert some influence on land use. When the whole of Beaver County was considered the lowest per cent of land devoted to cropland was found in the owner operator class followed by land

owned and operated by part owners and land rented by part owners in the order named, with about the same per cent of land operated by tenants devoted to cropland as was true of part owner rented land. Range land was concentrated in the owner operator class.

Except for nonresident owner operated land and nonresident part owner owned and operated land there were no sizeable differences as between tenure classes in the uses made of cropland.

CHAPTER IV. VARIATIONS IN LAND USE WITHIN THE LAND USE PROBLEM AREAS OF BEAVER COUNTY

In the Land Use Planning Program, Beaver County was divided into six Land Use Problem Areas (Fig. 2). These areas are such that within each there is a relatively homogeneous situation as to kind of land, type of farming, and agricultural problems.[1/]

In this chapter each of the areas thus delineated will be considered as a unit and variations in land use as influenced by residence of landowner and tenure class of the operator examined to see if the same situation exists in each. By the above process it should be possible to determine if the two factors enumerated above have more influence on land use under certain given, rather uniform, situations than under others.

Area 1E

Area 1E (Fig. 2) may be briefly described as a level area of hard, heavy wheat land where cash grain farming (Principally wheat) is followed.[2/]

A larger percentage of land owned by nonresidents was used for cropland and a smaller proportion for pasture as compared with land owned by residents in Area 1E in 1938 (Table 7).

1/ For a fuller discussion of Land Use Planning, see Harold A. Miles, "Land Use Planning in Oklahoma," Current Farm Economics, June, 1940, pp. 67-70, and August, 1940, pp. 83-89.

2/ See Cover Page, "A Summary of the Beaver County Land Use Planning Committee's Report," Appendix, p. 51.

Table 7. Percentage of Resident and Nonresident Owned Land Devoted to Major Uses in Land Use Problem Area 1E, Beaver County, Oklahoma 1938

Item	Per Cent of Total Land In			
	Cropland	Pasture	Restoration	Range
Resident Owned	79.8	16.7	0.3	
Nonresident owned	88.8	8.8		

In Area 1E a somewhat smaller percentage of the resident owned cropland was devoted to wheat and a larger percentage to the other uses than was true of nonresident owned land in 1938 (Table 8).

Table 8. Per Cent of Resident and Nonresident Owned Cropland Devoted to Specified Crops, Land Use Problem Area 1E, Beaver County, Oklahoma, 1938

Item	Per Cent of Cropland In					
	Wheat	Oats & Barley	Grain Sorghums	Sweet Sorghum & Millet	Sudan	Summer Fallow
Resident owned	62.0	2.7	2.9	7.7	5.4	6.2
Nonresident owned	67.3	1.3	.74	5.9	3.5	5.2

Appreciably larger percentages of rented land as compared with owned land were devoted to crops and smaller percentages to pasture in Area 1E in 1938.

Larger proportions of land rented by part owners were devoted to crops than was true of land owned by them. (Table 9)

Table 9. Percentage of Land Devoted to Major Uses by Residence of the Owner and Tenure Class of the Operator, Area 1E, Beaver County, Oklahoma, 1938

Type of Land	Owned	Per Cent Item Is of Total Land Operated by			
		Owners	Part Owners: Owned	Rented	Tenants
Cropland	Resident	79.0	78.2	82.4	83.4
	Nonresident	76.7	3/	92.0	87.1
Pasture	Resident	16.5	19.4	14.9	13.6
	Nonresident	20.4	3/	5.5	10.4
Restoration	Resident	0.3	0.1	--	--
	Nonresident	--	--	0.1	0.2
Range	Resident	--	--	--	--
	Nonresident	--	3/	--	--

A larger percentage of tenant operated as compared with owner operated land was cropland and a smaller percentage was pasture in 1938 in Area 1E (Table 9).

Table 10. Percentage of Cropland Devoted to Specified Uses by Residence of the Owner and Tenure Class of the Operator, Area 1E, Beaver County, Oklahoma, 1938

Item	Owned	Per Cent Item Is of Total Cropland on Land Operated by			
		Owners	Part Owners: Owned 4/	Rented	Tenants
Wheat	Resident	62.0	62.0	57.4	71.8
	Nonresident	54.3		69.5	66.8
Idle Cropland	Resident	0.2	0.2	--	--
	Nonresident	--		--	0.2
Grain Sorghums	Resident	3.6	2.4	2.4	1.9
	Nonresident	1.8		0.2	1.4
Sweet Sorghum and Millet	Resident	6.6	8.3	8.2	9.6
	Nonresident	2.3		6.5	5.7
Summer Fallow	Resident	7.5	6.4	6.2	--
	Nonresident	4.8		4.3	6.6
Sudan	Resident	5.4	6.5	3.6	2.7
	Nonresident	3.5		3.4	3.7

3/ None in this class.

4/ None in this class under nonresident owned.

A larger percentage of cropland operated by tenants was used for wheat than in the other tenure classes. Otherwise the cropland was used quite similarly in each tenure class (Table 10).

Area 2E

Area 2E is described as an area of level to rolling sandy loam soil. Wheat farming, and some feed crop and livestock production are the chief types of farming followed.[5/]

Only very slight differences existed as between resident and nonresident owned land in the proportion of land devoted to the four major uses shown in Table 11: Slightly smaller proportions of land devoted to cropland and slightly larger proportions to pasture seem to be characteristic of resident as compared with nonresident owned land.

Table 11. Per Cent of Land Devoted to Major Uses by Residence of Landowner, Area 2E, Beaver County, Oklahoma, 1938

Item	Per Cent of Total Land Devoted to			
	Cropland	Pasture	Restoration	Range Land
Resident owned	88.4	8.8	0.4	--
Nonresident owned	90.1	6.8	1.5	--

Marked similarity existed as between the uses made of cropland of nonresident and resident owned land in this area: Only a slightly larger proportion of cropland was

5/ See Appendix, p. 5.

used for wheat and a slightly smaller proportion for other crops and uses on the part of nonresident as compared with resident owned land (Table 12).

Table 12. Per Cent of Cropland Devoted to Specified Uses by Residence of Landowner, Area 2E, Beaver County, Oklahoma, 1938

Item	Per Cent of Cropland Devoted to						
	Wheat	Oats and Barley	Grain Sorghums	Sweet Sorghum & Millet	Sudan	Idle	Summer Fallow
Resident owned	49.2	0.6	12.7	8.4	2.4	1.5	21.2
Nonresident Owned	51.0		12.2	9.3	3.9	3.0	22.1

Two things of particular interest in this study appear in Table 13: The higher proportion of cropland and lower percentage of pasture land of rented land as compared with owned land, and the wide spread in land use as between resident and nonresident owner operators. The land use of resident owner operators is about the same as for the other tenure classes except nonresident owner operators. Nonresident owner operators on the other hand had less cropland, more pasture, and more restoration than any other class (Table 13).

A smaller proportion of part owner owned land was devoted to crops than was true of land rented by part owners; the latter had the largest per cent of land devoted to cropland of any class.

In Area 2E there seems to be a tendency for a larger proportion of the rented cropland to be devoted to wheat

Table 13. Land Use by Residence of Landowner and Tenure Class of the Operator in Area 2E, Beaver County, Oklahoma, 1938

Type of Land	Owned	Per Cent Item Is of Total Land Operated by			
		Owners	Part Owners: Owned	Part Owners: Rented	Tenants
Cropland	Resident	86.8	86.7 [6]	92.5	90.3
	Nonresident	39.3		93.0	90.3
Pasture	Resident	10.1	10.7	4.6	7.0
	Nonresident	18.0		6.1	6.8
Restoration	Resident	0.9	--	0.3	--
	Nonresident	40.6		--	--
Range	Resident	--	--	--	--
	Nonresident	--		--	--

and a smaller proportion to grain sorghums, sweet sorghum, millet, and sudan than was true of owned land.

Table 14. Per Cent Distribution of Uses Made of Cropland by Residence of Owner, Tenure Class of Operator in Area 2E, Beaver County, Oklahoma, 1938

Item	Owned	Per Cent Item Is of Total Cropland on Land Operated by			
		Owners	Part Owners: Owned	Part Owners: Rented	Tenants
Wheat	Resident	48.5	47.8 [7]	52.6	47.6
	Nonresident	35.5		51.0	51.5
Idle	Resident	1.9	0.8	0.5	3.1
	Nonresident	--		2.7	3.6
Grain Sorghums	Resident	15.6	13.0	6.5	12.9
	Nonresident	22.7		12.3	11.3
Sweet Sorghum and Millet	Resident	7.9	9.5	6.3	11.4
	Nonresident	20.9		8.9	9.6
Summer fallow	Resident	22.2	19.2	23.2	17.6
	Nonresident	12.1		24.1	18.7
Sudan	Resident	2.4	4.4	1.1	1.5
	Nonresident	3.9		1.6	2.8

6/ None in this class under nonresident owned.

7/ Ibid.

As the nonresident owner operator was the exception as to major uses of land in this area (Table 13) so was this class the exception as to use made of cropland, having the smallest per cent of cropland used for wheat and summer fallow, and the largest per cent for grain sorghums and sweet sorghums of any class (Table 14).

Area 3E

Land Use Problem Area 3E has been described as a rolling, mixed land area in which general farming with some wheat and some livestock predominates.[8/]

In Area 3E a much larger percentage of nonresident owned land is cropland than is the situation with regard to resident owned land. About one-fourth of the land owned by residents is range land while none of the nonresident owned land is range land (Table 15).

Table 15. Per Cent of Land Devoted to Major Uses by Residence of the Landowner in Area 3E, Beaver County, Oklahoma, 1938

Item	Per Cent of Total Land In			
	Cropland	Pasture	Restoration	Range
Resident Owned	47.6	25.2	1.6	24.8
Nonresident owned	69.1	29.3	1.9	--

With respect to uses made of cropland the tendencies noted in previous areas continue to persist: A larger proportion of cropland devoted to wheat and a smaller

8/ See Appendix, p. 7.

proportion to other uses on the part of nonresident owned land as compared with resident owned land (Table 16).

Table 16. Per Cent of Cropland Devoted to Specified Uses by Residence of the Landowner, Area 3E, Beaver County, Oklahoma, 1938

Owned by	Per Cent of Cropland In						
	Wheat	Oats and Barley	Grain Sorghum	Sweet Sorghum & Millet	Sudan	Idle	Summer Fallow
Resident	47.9	2.3	8.4	12.7	7.1	1.8	4.3
Nonresident	54.8	1.3	8.4	10.5	5.7	3.2	4.0

Range land in Area 3E was concentrated in the hands of resident owners and part owners, both of which own the range land in question; there also seems to be a tendency for larger percentages of rented land to be cropland than is true of owned land. The larger percentage of land devoted to cropland is found in the part owner class where the land is rented; the percentage is much larger than is true of part owner owned land (Table 17).

Resident owner operators in this area are the exception as to land use: They have a smaller proportion of their land devoted to cropland and a larger proportion to range land than is true of any other class (Table 17).

The use made of cropland in 1938 in Area 3E seems to have been quite similar in all tenure classes. In the part owner class, however, the differences noted in previous areas appear in this area: A larger per cent of

rented cropland was devoted to wheat than was true of owned land (Table 18).

Table 17. Per Cent of Land Devoted to Specified Uses by Residence of the Landowner and Tenure Class of the Farm Operator, Area 3E, Beaver County, Oklahoma, 1938

Type of Land	Owned by	Per Cent Item Is of Total Land Operated by			
		Owners	Part Owners: Owned	Part Owners: Rented	Tenants
Cropland	Resident	35.1	57.6	69.6	57.6
	Nonresident	61.0	59.4	71.4	64.8
Pasture	Resident	22.6	27.1	26.1	38.1
	Nonresident	36.7	36.6	23.0	27.7
Restoration	Resident	1.9	1.3	1.6	1.1
	Nonresident	--	--	2.5	0.7
Range	Resident	41.1	12.0	--	--
	Nonresident	--	--	--	--

Table 18. Per Cent of Cropland Devoted to Specified Uses by Residence of Landowner and Tenure Class of the Operator, Area 3E, Beaver County, Oklahoma, 1938

Item	Owned by	Per Cent Item Is of Total Cropland On Land Operated by			
		Owners	Part Owners: Owned	Part Owners: Rented	Tenants
Wheat	Resident	46.4	48.2	50.1	48.1
	Nonresident	54.8	47.3	55.6	56.3
Idle	Resident	1.7	2.3	1.5	0.5
	Nonresident	3.2	10.6	1.3	3.4
Grain Sorghums	Resident	10.3	6.4	7.1	13.6
	Nonresident	8.4	--	6.7	13.0
Sweet Sorghum and Millet	Resident	11.3	13.9	15.0	10.0
	Nonresident	10.5	22.1	10.0	10.3
Summer Fallow	Resident	3.4	4.0	6.0	5.8
	Nonresident	4.0	--	2.9	7.7
Sudan	Resident	8.6	7.3	4.1	5.2
	Nonresident	5.7	2.6	5.9	5.8

Area 4A

Area 4A is primarily a stock ranching area with some general farming followed, particularly along the edges of the area. The land is spotted: Some is extremely sandy, some is loamy, while still other is hard land.[9/]

Sizeable differences as between resident and nonresident owned land in the proportion of land devoted to the four major uses shown in Table 19 may be observed. Relatively small proportions of resident owned land were devoted to cropland, pasture, and restoration, while a rather high proportion was range land. With regard to nonresident owned land about the reverse was true. Relatively large percentages of land were devoted to cropland, pasture, and restoration, and a small proportion to range land (Table 19).

Table 19. Percentage of Land Devoted to Major Uses by Residence of the Landowner, Area 4A, Beaver County, Oklahoma, 1938

Item	Per Cent of Total Land In			
	Cropland	Pasture	Restoration	Range
Resident Owned	19.5	19.2	4.4	55.3
Nonresident Owned	40.0	25.0	16.2	16.3

A larger proportion of the cropland of residents was devoted to each crop than was true of nonresident owned

9/ Ibid, p. 8.

land; conversely, a larger proportion of the cropland of nonresidents was idle in 1938 (Table 20).

Table 20. Per Cent of Cropland Devoted to Specified Uses by Residence of Landowner, Area 4A, Beaver County, Oklahoma, 1938

Owned by	Per Cent of Cropland Devoted To						
	Wheat	Oats and Barley	Grain Sorghums	Sweet Sorghum & Millet	Idle	Summer Fallow	Sudan
Resident	15.9	0.2	29.5	21.4	7.7	2.7	7.4
Nonresident	15.0	0.2	13.9	20.0	15.8	2.4	5.8

In Area 4A there tends to be a larger per cent of rented land devoted to cropland than is true of land owned by the operator, and range land tends to be concentrated in the hands of operators who own it. (Table 21)

There is a wide variation in land use as between owner operators and tenants in this area. Owner operators appear to be stock ranchers who use a relatively small proportion of their land for crops and a relatively large proportion for range and restoration. Tenants, on the other hand, use a relatively large proportion of their land for crops and have no range land--only comparatively small pastures. Part owners came in pretty well between the two extremes with larger proportions of their land used for range and pasture as compared with tenants but smaller compared with owner operators. (Table 21)

Table 21. Percentage of land Devoted to Major Uses by Residence of Landowner and Tenure Class of Farm Operator, Area 4A, Beaver County, Oklahoma, 1938

Type of Land	Owned by	Per Cent Item Is of Total Land Operated by			
		Owners	Part Owners: Owned	Part Owners: Rented	Tenants
Cropland	Resident	10.5	27.1	65.1	75.3
	Nonresident	8.4	66.2	57.8	60.7
Pasture	Resident	14.5	35.0	29.5	20.5
	Nonresident	16.5	24.0	33.0	23.9
Restoration	Resident	3.7	9.7	0.7	2.5
	Nonresident	29.4	7.9	6.1	12.4
Range	Resident	70.1	26.4	--	--
	Nonresident	42.8	--	0.5	--

Table 22. Per Cent of Cropland Devoted to Specified Uses by Residence of Landowner and Tenure Class of Farm Operator, Area 4A, Beaver County, Oklahoma 1938

Item	Owned by	Per Cent Item Is of Total Cropland on Land Operated by			
		Owners	Part Owners: Owned	Part Owners: Rented	Tenants
Wheat	Resident	15.0	10.0	23.3	14.3
	Nonresident	--	--	18.1	14.2
Idle	Resident	8.3	9.9	6.6	4.3
	Nonresident	47.4	74.1	6.0	21.0
Grain Sorghums	Resident	32.2	23.2	28.8	34.2
	Nonresident	25.1	5.4	33.5	32.9
Sweet Sorghums and Millet	Resident	23.4	25.2	15.0	21.9
	Nonresident	4.9	9.1	20.5	24.1
Summer Fallow	Resident	1.7	2.4	4.8	1.9
	Nonresident	--	11.4	3.6	--
Sudan	Resident	5.8	10.9	8.3	3.5
	Nonresident	5.8	--	6.0	5.9

In 1938 in Area 4A a larger per cent of rented land was devoted to wheat than was true of owned land. (Table 22)

The nonresident owner operated land and the nonresident part owner operated and owned land appeared to be

the exceptions as to land use in the area with no wheat and relatively large percentages of the cropland idle.

Area 5E

Area 5E is an area where cash grain (wheat) and general farming are followed. The land lies level and some of it is sandy loam and some is hard land.[10/]

Resident owned land in Area 5E tended to be devoted less to cropland and more to pasture than nonresident owned land (Table 23).

Table 23. Per Cent of Land Devoted to Major Uses by Residence of Landowner, Area 5E, Beaver County, Oklahoma, 1938

Item	Per Cent of Total Land In			
	Cropland	Pasture	Restoration	Range
Resident Owned	72.8	24.1	0.1	--
Nonresident Owned	76.9	16.8	1.7	--

The same tendency as noted earlier with respect to the use of cropland continues in Area 5E: A larger proportion of nonresident owned land was devoted to wheat and a smaller proportion to feed crops than was true of resident owned land (Table 24).

In Area 5E there appears to be a tendency for a larger proportion of the rented land as compared with owned land to be devoted to cropland and less to pasture (Table 25).

10/ Ibid, p. 11.

Table 24. Per Cent of Cropland Devoted to Specific Uses By Residence of Landowner, Area 5E, Beaver County, Oklahoma, 1938

Owned by	Per Cent of Cropland In						
	Wheat	Oats and Barley	Grain Sorghums	Sweet Sorghum & Millet	Sudan	Summer Fallow	Idle
Resident	51.7	0.5	4.7	8.1	5.3	2.8	1.1
Nonresident	57.5	0.5	1.9	6.5	4.2	6.4	1.1

Table 25. Per Cent of Land Devoted to Major Uses by Residence of Landowner and Tenure Class of the Farm Operator, Area 5E, Beaver County, Oklahoma, 1938

Type of Land	Owned	Per Cent Item Is of Total Land Operated by			
		Owners	Part Owners: Owned	Part Owners: Rented	Tenants
Cropland	Resident	66.6	65.4	79.3	83.3
	Nonresident	70.8	11/	82.8	69.2
Pasture	Resident	30.4	30.8	18.6	12.7
	Nonresident	19.8	11/	12.8	22.9
Restoration	Resident	--	--	--	0.3
	Nonresident	2.0	11/	1.0	2.7
Range	Resident	--	--	--	--
	Nonresident	--	11/	--	--

Otherwise land use as between the several tenure classes is relatively uniform.

In Area 5E about the same proportion of cropland was devoted to wheat in each ownership and tenure class, and relatively narrow variations may be noted in the other uses made of cropland (Table 26).

11/ None in this class.

Table 26. Per Cent of Cropland Devoted to Specified Uses by Residence of Landowner and Tenure Class of Operator Area 5E, Beaver County, Oklahoma, 1938

Item	Owned by	Per Cent Item Is of Total Cropland on Land Operated by			
		Owners	Part Owners: Owned	Part Owners: Rented 12/	Tenants
Wheat	Resident	47.6	64.0	54.1	59.6
	Nonresident	55.9		61.3	49.5
Idle	Resident	0.9	1.0	1.0	1.6
	Nonresident	--		1.0	2.1
Grain Sorghums	Resident	3.5	6.5	6.0	3.3
	Nonresident	--		2.1	2.5
Sweet Sorghums and Millet	Resident	13.1	7.5	3.6	6.9
	Nonresident	--		8.6	6.0
Summer Fallow	Resident	--	2.6	8.7	--
	Nonresident	10.9		6.3	3.4
Sudan	Resident	5.1	7.0	6.8	2.6
	Nonresident	12.9		2.6	2.0

Area 6E

This is an area in which general farming, feed crops and livestock predominate. The area is made up of level to undulating sandy and sandy loam soils.[13/]

A larger percentage of nonresident owned land was devoted to cropland and a smaller per cent to pasture than was true of resident owned land in Area 6E in 1938 (Table 27).

In this area in 1938 a larger proportion of nonresident owned land was devoted to wheat and a smaller percentage to feed crops than was true of resident owned land (Table 28).

In 1938 a smaller proportion of land operated by owner

12/ None in this class under nonresident owned.

13/ See Appendix, p. 12.

Table 27. Percentage of Land Devoted to Major Uses by Residence of Landowner, Area 6E, Beaver County, Oklahoma, 1938

Item	Per Cent of Total Land In			
	Cropland	Pasture	Restoration	Range
Resident Owned	80.2	13.3	3.8	--
Nonresident Owned	87.6	6.2	2.9	--

Table 28. Per Cent of Cropland Devoted to Specified Uses by Residence of Landowner, Area 6E, Beaver County, Oklahoma, 1938

Item	Per Cent Of Cropland Devoted to							
	Wheat	Oats & Barley	Grain Sorghums	Sweet Sorghum & Millet	Sudan	Idle	Summer Fallow	Broom Corn
Resident owned	28.2	1.4	36.6	11.8	6.7	4.9	7.4	1.4
Nonresident owned	32.1	0.5	28.2	10.6	3.0	9.7	20.9	0.8

operators was cropland and a larger per cent was pasture than in any other tenure class. The use made of land was quite similar in the other classes, except for the tendency for a larger proportion of rented land to be cropland than was true of owned land (Table 29).

In 1938 in Area 6E there was no consistency in the variation in use of cropland in the several tenure classes. Nonresident owners and part owners who owned the land operated were exceptions to the other classes, having all their land idle (Table 30).

Table 29. Per Cent of Land Devoted to Major Uses by Residence of Landowner and Tenure Class of the Operator, Area 6E, Beaver County, Oklahoma 1938

Type of Land	Owned	Per Cent Item Is of Total Land Operated by			
			Part Owners		
		Owners	Owned	Rented	Tenants
Cropland	Resident	70.0	80.4	87.5	84.9
	Nonresident	50.5	92.0	92.5	84.9
Pasture	Resident	19.4	11.8	9.8	11.4
	Nonresident	19.6	7.5	4.5	6.5
Restoration	Resident	7.6	4.8	--	2.5
	Nonresident	18.5	--	0.3	6.0
Range	Resident	--	--	--	--
	Nonresident	--	--	--	--

Table 30. Per Cent of Cropland Devoted to Specified Uses by Residence of Landowner and Tenure Class of the Operator, Beaver County, Oklahoma, Area 6E, 1938

Item	Owned	Per Cent Item Is of Total Cropland on Land Operated by			
			Part Owners		
		Owners	Owned	Rented	Tenants
Wheat	Resident	35.7	27.6	22.5	28.0
	Nonresident	--	--	34.5	34.0
Idle	Resident	5.1	3.4	7.3	3.5
	Nonresident	100.0	100.0	4.1	0.7
Grain Sorghums	Resident	24.7	35.6	45.3	39.8
	Nonresident	--	--	27.3	41.4
Sweet Sorghums and Millet	Resident	13.3	9.3	12.1	12.9
	Nonresident	--	--	10.5	14.7
Summer fallow	Resident	6.1	12.7	5.9	4.2
	Nonresident	--	--	24.1	17.4
Sudan	Resident	3.6	9.5	5.4	8.6
	Nonresident	--	--	4.0	0.6

Summary

When land use for the whole of Beaver County was considered in Chapters II and III, certain tendencies were noted when residence of landowner and tenure class of the operator were considered:

1. A larger proportion of nonresident owned land was cropland than was true of resident owned land.
2. A slightly larger percentage of nonresident owned land was restoration than was the case with resident owned land.
3. Larger proportions of the resident as compared with nonresident owned land was pasture and range land.
4. Slightly larger percentages of nonresident as compared with resident owned cropland was used for wheat and less for feed crops.
5. Larger percentages of rented land was cropland as compared with that operated by owners.
6. Larger proportions of land rented by part owners was cropland than was true of land owned by part owners.
7. Range land was concentrated in the owner operator class.
8. Nonresident owner operators (part owners of land owned by them and full owner operators) used their cropland differently as compared with other classes.
9. Cropland was not used differently as between tenure classes.

Variations as Between Land Use Problem Areas

When land use for each of the Land Use Problem Areas of the county was considered, certain variations as compared

with the whole of the county were noted.

With the exception of Area 4A, the areas followed in general the pattern observed for the whole county. In Area 4A the tendencies for less nonresident as compared with resident owned land to be pasture land and less land operated by owner operators, both resident and nonresident, to be cropland were more pronounced than for the other areas.

It is of interest to note that there were exceptions to the nonresident owner operators for the county as a whole being the exceptional tenure class with respect to land use.

In Area 5E the resident owner operator class appeared to be the exception. In it was found less cropland and more range land than in any other class.

In Area 4A both resident and nonresident owner operators were exceptions; both had less cropland and more range land than the other groups.

In two other areas, 2E and 6E, the pattern observed for the whole county, of the nonresident owner operator whether part or full owner being the exception, prevailed.

CHAPTER V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

In Chapter I three questions were posed, the answers to which were to be obtained in this study: "1. Are there differences in land use as between resident and nonresident owned land? If so, what differences exist? 2. Are there differences in land use as between tenure classes of farm operators? If so, what are they? 3. Is the situation with respect to question "1" and/or "2" uniform over the county? If not, what are the variations?" 1/

In Chapters II, III, and IV the differences in land use as between the several ownership and tenure classes consisted in the main of differences as to the proportion of land devoted to cropland, range, and pasture, and as to the proportion of cropland devoted to wheat. In summarizing the findings in this study the above items will be used exclusively.

Are there differences in land use as between resident and nonresident owned land? If so, what are they?

In each land use problem area of the county a larger proportion of nonresident owned land was devoted to cropland than was true of resident owned land. (Fig. 3A) The differences were least in Areas 1E, 2E, 5E, and 6E, and greatest in Areas 3E and 4A. Area 4A is one in which the largest adjustments in land use were recommended by the

1/ See Chapter I, p. 8.

Land Use Planning Committees and Area 3E is an area in which relatively large adjustments in land use were also recommended.[2/]

In each area a larger proportion of resident owned land was devoted to pasture and range than was the case with nonresident owned land (Fig. 3B.) Here again the greatest differences between resident and nonresident owned land appeared in Areas 3E and 4A.

In all areas except 4A, a slightly larger percentage of nonresident as compared with resident owned cropland was devoted to wheat. The differences did not in any case exceed ten per cent and in Area 4A, the difference was about one per cent. In most cases the spread was about five per cent (Fig. 3C.)

Are there differences in land use as between tenure classes of farm operators? If so, what are they?

In all land use problem areas a larger proportion of resident owned tenant operated land was devoted to cropland than was true of resident owner operated land. The widest spread was in Area 4A where, as pointed out earlier, relatively large adjustments in land use had been recommended by the Land Use Planning Committees (Fig 4A.)

In the case of nonresident owned tenant operated land as compared with nonresident owner operated land the relationship between the several areas was less uniform than that observed above; however, in all areas except 5E, a

2/ "Report of the Beaver County Land Use Planning Committee," a typewritten report, Area 3E, p. 8, and Area 4A, p. 8.

Fig. 3. Major Uses of Land by Residence of Landowner
Land Use Problem Areas, Beaver County
Oklahoma, 1938

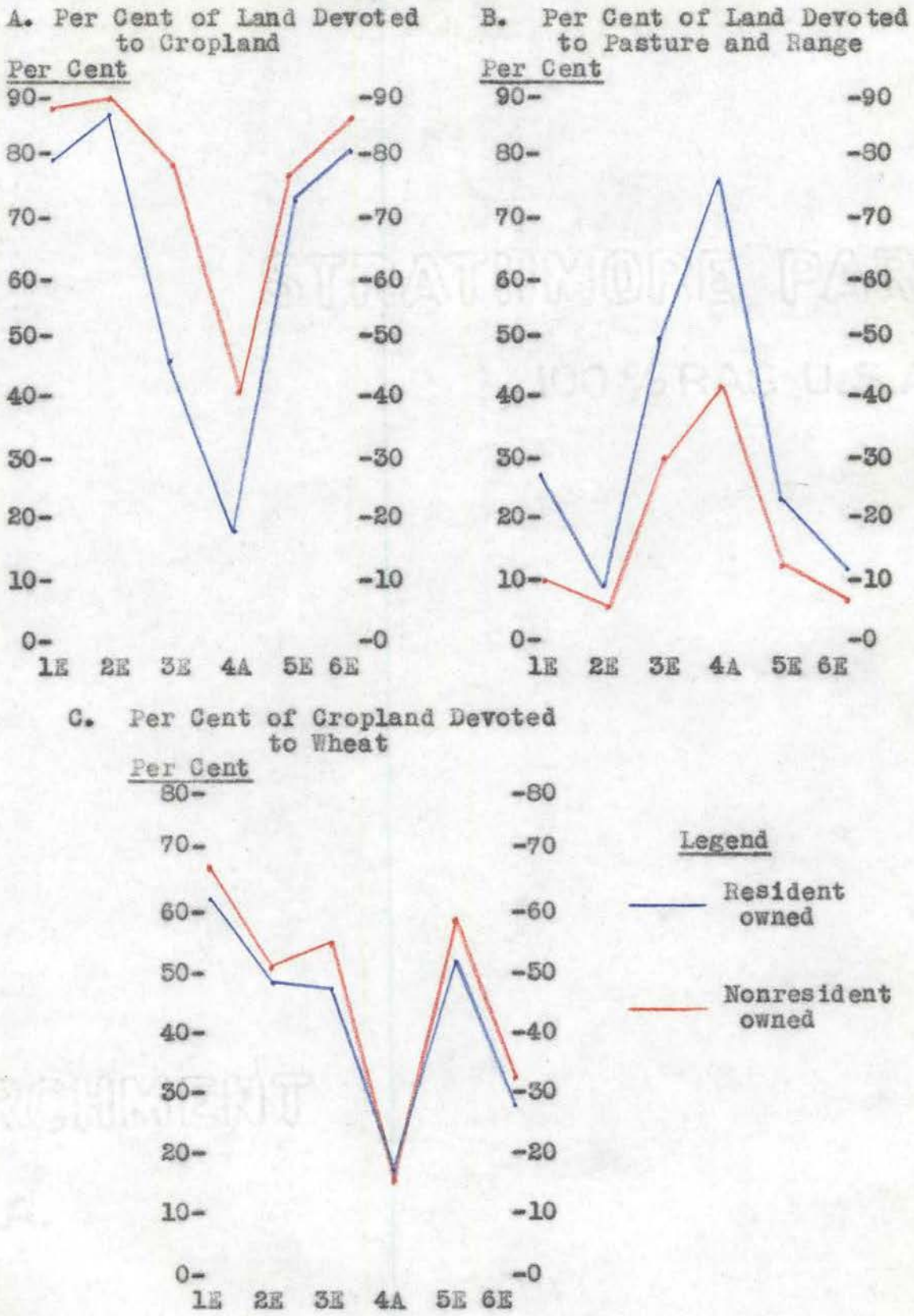
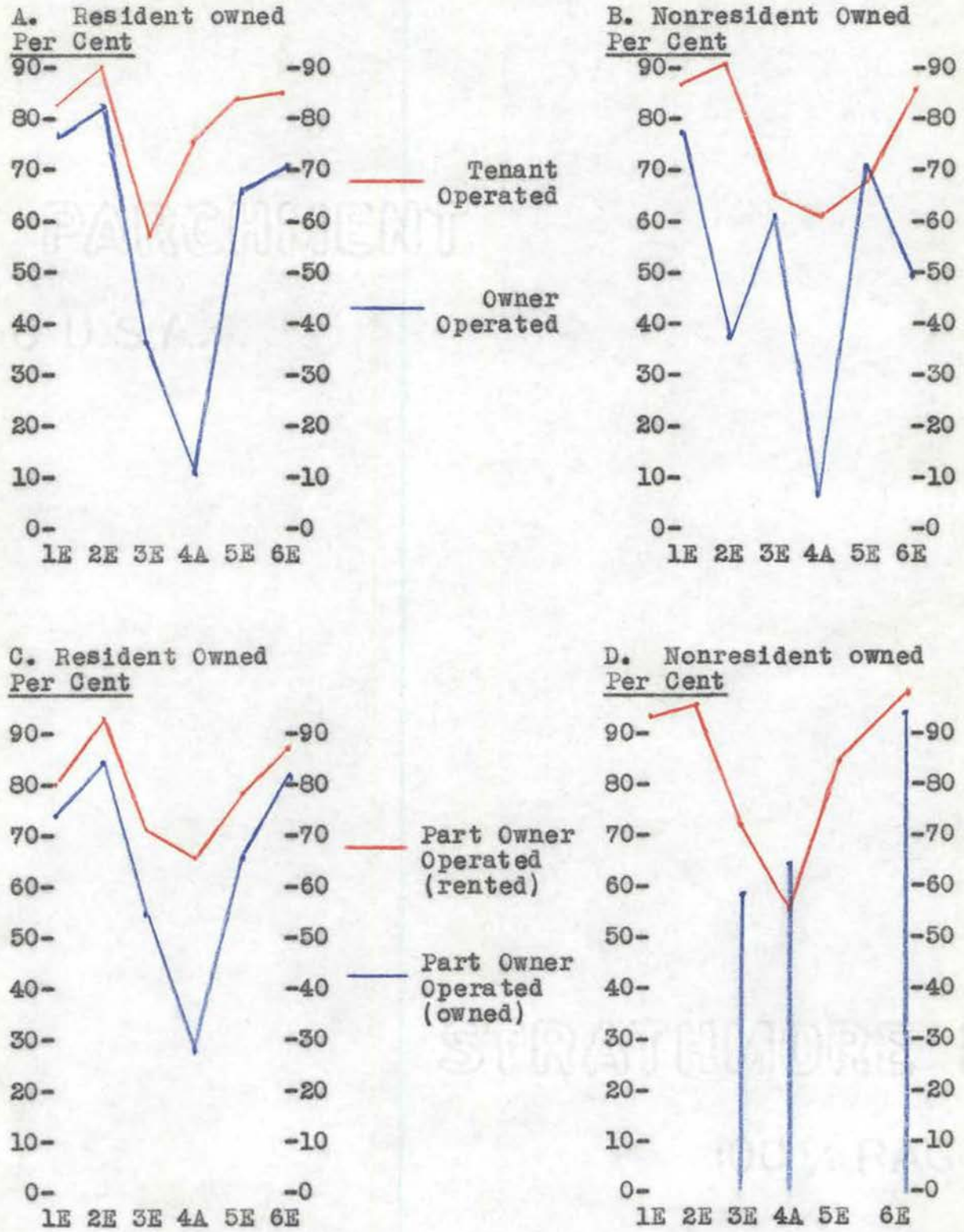


Fig. 4. Percentage of Land Devoted to Cropland by Residence of Landowner and Tenure Class of Farm Operator, Land Use Problem Areas, Beaver County, Oklahoma, 1938



larger proportion of nonresident owned tenant operated land was devoted to cropland than was true of nonresident owner operated land. In Area 5E the difference was small. (Fig. 4B)

In all land use problem areas a larger per cent of resident owned land rented by part owners was devoted to cropland than was the case of resident owned land owned and operated by part owners. Here again the widest spread between the two tenure classes was in Area 4 (Fig. 4C).

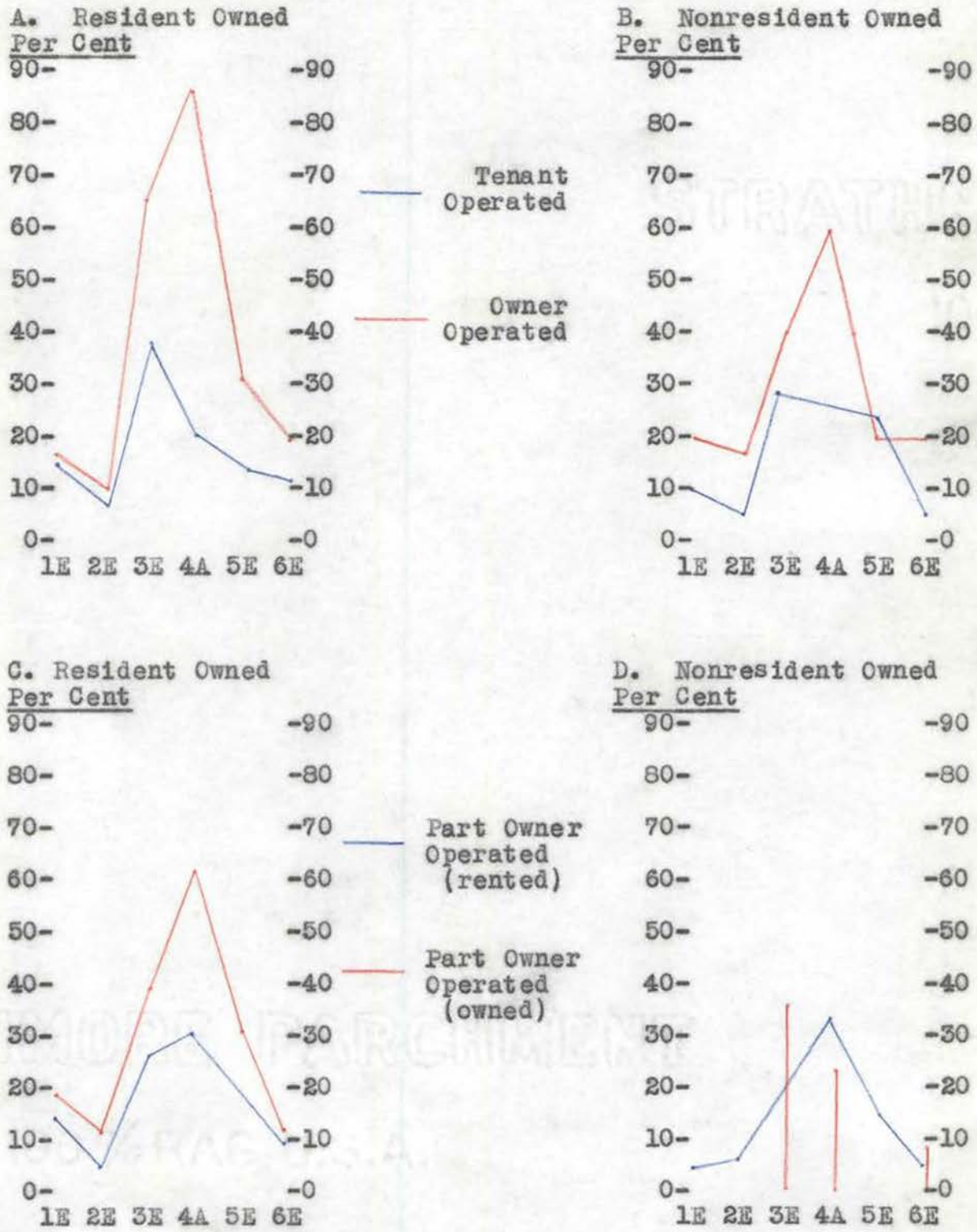
In only half the areas were samples of nonresident owned part owner rented land obtained, Areas 3E, 4A, and 6E. The relationships observed with respect to resident owned part owner operated land do not exist with respect to nonresident owned part owner operated land (Fig. 4D).

In all land use problem areas a larger proportion of resident owner operated land was devoted to pasture and range land than was true of resident owned tenant operated land. The widest spread may be observed in Areas 3E and 4A in which, as pointed out earlier, sizeable shifts in land use were recommended by the Land Use Planning Committees (Fig. 5A).

A larger proportion of nonresident owner operated land was devoted to pasture than was true of nonresident owned tenant operated land in all areas except 5E. The widest spread in the tenure classes was in Area 4A (Fig. 5B).

In all areas a larger per cent of land owned and operated by resident part owners was pasture and range land than

Fig. 5. Percentage of Land Devoted to Pasture and Range by Residence of Landowner and Tenure Class of Operator, Land Use Problem Areas, Beaver County, Oklahoma, 1938



was true of resident owned land rented by part owners. Here again the widest spread was in Area 4A (Fig. 5C).

With respect to nonresident owned land part of which was owned and operated by part owners and part of which was rented by part owners, no definite pattern exists so far as the present sample shows (Fig. 5D).

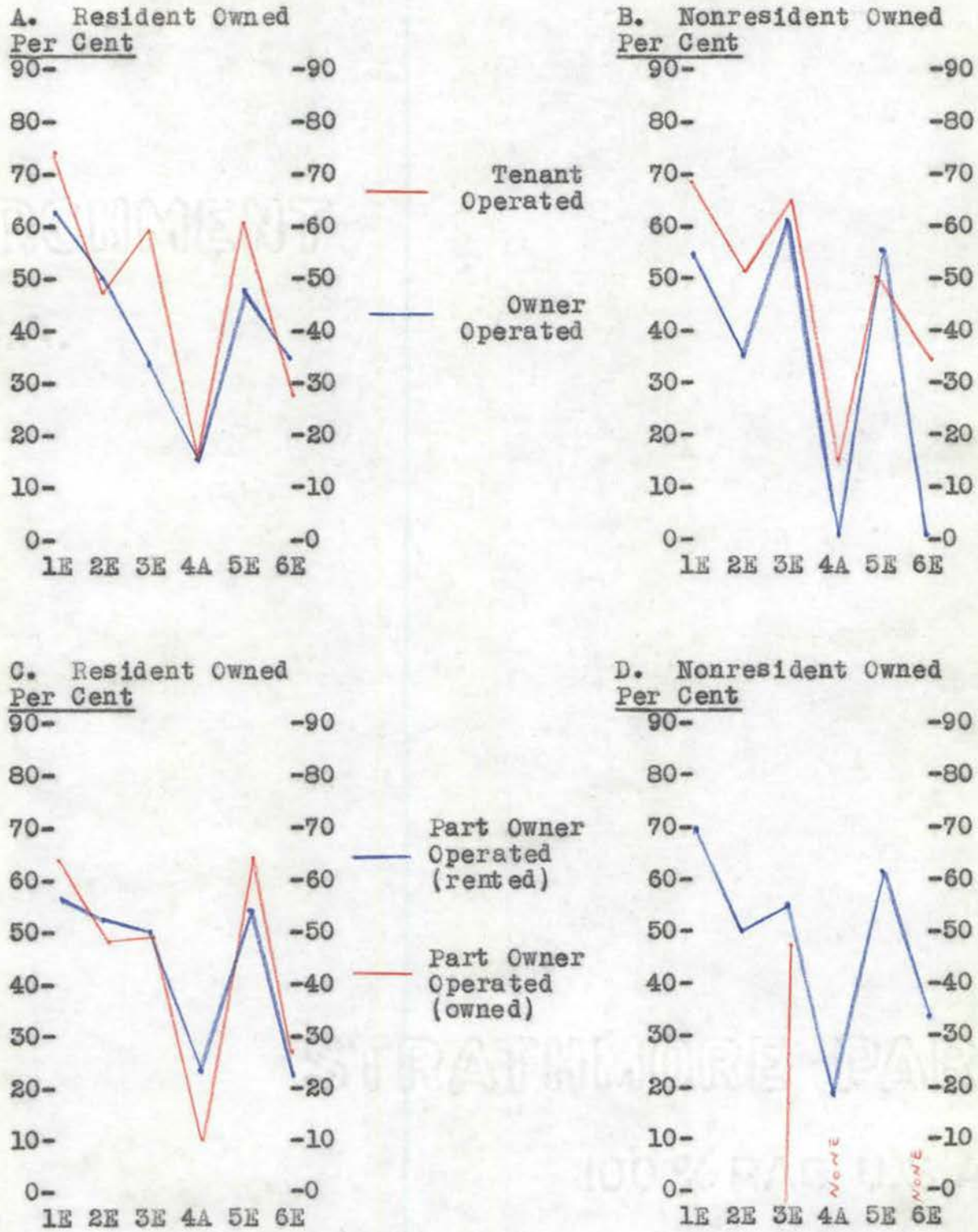
When the percentage of cropland devoted to wheat in each Land Use Problem Area and each ownership, residence, and tenure class was considered, no definite pattern could be observed. Except for isolated cases the spread in proportion of cropland devoted to wheat is extremely narrow. (Fig. 6)

The third question to be answered by this study yet remains. Is the situation with respect to variations in land use as between ownership, residence, and tenure classes uniform over the county? If not, what are the variations?

Except for Land Use Problem area 4A, a relatively uniform situation as to land use as between the ownership, residence, and tenure classes exists among the several areas.

In Area 4A the widest spread between the per cent of resident as compared with nonresident owned land devoted to pasture and range land existed (Fig. 3); in Area 4A the widest spread between per cent of land devoted to cropland as between the several tenure and ownership residence classes was found, except in the case of nonresident part owner operated land. (Fig. 3) The widest spread in the per cent of land

Fig. 6. Per Cent of Cropland Devoted to Wheat by Residence of Landowner and Tenure Class of Farm Operator, Land Use Problem Areas, Beaver County, Oklahoma, 1938



devoted to pasture and range among the several classes except for nonresident part owner operated land was also found in Area 4A (Fig. 5).

From the above it can be seen that the peculiarities observed in land use are more pronounced in Area 4A which is an area thought to be in need of sizeable adjustments in land use.

To a considerably lesser extent, but in the same general direction, many of the peculiarities exhibited by Area 4A may be observed in Area 3E, an area in which sizeable adjustments in land use were recommended by Land Use Planning Committees. The adjustments recommended for Area 3E were sizeable but much smaller than those recommended for Area 4A.

One peculiarity may be observed in the case of nonresident owned land operated by part owners (Fig. 4D and Fig. 5D). In each case land use does not follow the usual pattern exhibited by the other classes.

Conclusions

1. The land owned by residents is used differently from the land owned by nonresidents. The chief differences are in the proportion of land devoted to cropland and to pasture and range.
2. Land is used differently among tenants and owner operators, with tenants usually having a larger proportion of land devoted to cropland and a smaller proportion to pasture and range land.

3. Part owners use land they own differently from land they rent. The use of owned land tends to approximate that observed for owner operators and the use of rented land tends to approximate that observed for tenants.
4. Variations in land use tend to be greater among the several ownership, residence, and tenure classes in areas where relatively large adjustments in land use are needed.

Recommendations

Since definite land use patterns have been noted, it would appear advisable to study the effects on the land, and the returns to the landlords and operators of the variations observed. No attempt has been made in this study to determine which of the situations observed represented proper land use, or which was sound from the economic point of view. If this study is to contribute the most possible, it would seem appropriate to recommend the foregoing.

APPENDIX

A SUMMARY OF THE BEAVER COUNTY LAND USE PLANNING COMMITTEE'S REPORT

SUMMARY
of the
BEAVER COUNTY LAND USE PLANNING REPORT

Introduction

In the spring of 1938 a small group of farm men developed what seemed to them to be a sound statement of the needs of agriculture in Beaver County. During the winter and spring of 1938-1939 the information developed by this small committee was checked with larger committees of farm men and women all over the county and needed changes made. During the spring of 1939 in addition to farm men and women agricultural technicians were called in to meet with the committees of farm men and women to develop what has finally come to be known as the land use, or agricultural, planning report for Beaver County. In carrying on the work the folks concerned have

1. Divided the county into areas in which agricultural problems are similar (See page 1).
2. Pointed out major problems facing farm people and said what should be done about them.
3. Developed on paper the desirable kind, size, and organization of a family sized farm in each area of the county.
4. Classified each area on the basis of recommended major shifts in land use.

Farm people and agricultural agencies operating in the county are now trying to do something about some of the needs pointed out in land use planning work.

Problems of County-Wide Importance

Wind erosion was recognized as being a major agricultural problem in all areas except Area 4A. The chief recommendation to control this problem was to provide and maintain adequate cover on the land.

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Water erosion was recognized as a problem in all areas except Area 4A and Area 5E. Terracing land which needs terracing and contour or pit cultivating the major part of the farm land and building ponds in Area 3E were the main recommendations to control water erosion.

Insufficient livestock is a problem in all areas except Area 4A. To help guide other farm operators in the county the land use planning committees set up what in their opinion is an adequate amount of livestock for each area and recommended that they use such information as a guide in adjusting the livestock numbers on their farms.

Inadequate feed storage facilities is recognized as a problem in all areas except 4A, particularly if livestock numbers are to be increased in line with the recommendation listed above. It was recommended that trench silos be used to store at least a year's reserve feed supply so that livestock production might be stabilized on most farms.

Uneconomic operating units (small farms) were recognized as being a problem in all areas of the county. The land use planning committees set down on paper their idea as to what a farm should be like in each area generally and in all areas half or more of the farms were smaller than the committees thought a family could be supported on. They recommended that lending agencies use the recommended farm for each area as a guide in their lending policies and thus give encouragement to enlarging the size of small farms.

Farm-to-market roads were found to be inadequate and a lack of a planned or system of secondary or farm-to-market roads was recognized. The committee recommended that the State Highway Department as soon as possible designate, construct, and operate a secondary road system in the county.

Classification of Areas

All areas except Area 4A were, in the opinion of the committees, suitable to continue being farmed. The committee believed that Area 4A should be used for grazing rather than for farming and recommended that land use in this area be changed as rapidly as practical.

Introduction to Area Reports and Recommendations

The rest of this report deals with problems peculiar to each area and shows the farm recommended as the minimum family farm for each area. The committees in setting up these farms used what are believed to be prices that can reasonably be expected for the products sold. They recognized that no one farm would fit over all a particular area due to differences in land and differences in people but they did believe the farms had about the right balance between soil depleting and soil conserving crops and were about the right size for the good of all concerned. They appreciated the fact that in all areas there were many farms smaller than the one recommended but thought if lending agencies would use the recommended farms as a guide in formulating their lending policies that over a long period of time small farms could be made larger without serious social consequences.

Area Reports and Recommendations

The problems and recommendations in each area that are in addition to those listed for the county as a whole (See pages 1 and 2) follow:

AREA 1E

Untidy general appearance of farmsteads is a problem in this area. It is recommended that a clean up campaign be carried on by the county home

demonstration club members to clean up old machinery around farmsteads to improve their general appearance.

It is recommended that the two high schools in this area consider reorganization and perhaps consolidation since they are so close together and each serves such a small territory.

The average size farm in this area in 1938 was 374 acres with 310 acres in cultivation: 199 acres of wheat, 6 acres of grain sorghums, 22 acres of sweet sorghum and millet, 14 acres of Sudan, 18 acres of summer fallow, and one-half acre restoration. The average farm had about two head of work stock, 8 head of cattle of mixed breeds, one hog, and 126 chickens.

The farm below is the committee's idea as to what the minimum sized family farm should be like:

Recommended Farm

Total land, acres		640	
Pasture and waste		109	
Cropland		531	
Wheat	350		
Grain sorghums	25		
Forage sorghums	30		
Barley	20		
Temporary pasture	30		
Summer fallow	76		

Livestock:

General purpose cows	10
Sows	2
Horses and mules	2
Hens	125

Farming equipment: Combine, tractor, grain drill, plow, lister, pick-up truck, spring tooth harrow or field cultivator, platform binder or row binder and mower, cream separator, and wagon and other horse machinery

Yields and Production Estimated by Committee

Wheat, 15 bu. per acre; total 5,250 bu.; 4,650 bu. sold, 600 bu. used.
Grain sorghums, 15 bu. per acre, total 375 bu., for feed.
Forage sorghums, 2 tons per acre, total 60 tons, for feed.
Barley, 15 bu. per acre, total 300 bu., for feed.
10 cows raise 9 calves; 8 for sale, 1 used.
10 cows produce 1,500 lbs. butterfat; 1,350 lbs. sold, 150 lbs. used.
2 sows, 2 litters each, 24 pigs; 21 sold, 3 used.
125 hens produce 758 doz. eggs; 600 doz. sold, 158 doz. used.

Estimated Investment, Sales, and Expenses

Investment:	
Land and improvements	$11,900.00
Livestock	692.50
Feeds	200.00
Equipment and machinery	2,415.00
Total investment	$15,207.50

Expenses:	
Fuel, depreciation, and replacement on mach'y.	$1,200.00
Taxes	160.00
Labor	200.00
Miscellaneous	250.00
Supplemental feeds	100.00
Total expenses	$1,910.00

Sales:	
Wheat, @ 60¢	$2,790.00
Butterfat, @ 20¢	270.00
Hogs, @ $15	315.00
Calves, @ $22	176.00
Eggs, @ 16¢	96.00
50 cockerels, @ 25¢	12.50
75 cull hens, @ 50¢	37.50
Total Sales	$3,697.00

Summary:	
Total sales	$3,697.00
Less expenses	1,910.00
Net cash	$1,787.00
Interest at 5% on inv.	760.38
Net wages for operator and family	$1,026.62

Area 1E Land Use Planning Committee:

Mr. F. L. Bell - Gray
Mr. Amcy Pittman - Gray
Mr. A. P. Sager - Gray
Mrs. Vinnie Saunders - Gray
Mrs. Alma Rorabaugh - Gray

AREA 2E

No problems exist in this area other than those described for the county as a whole.

The average size farm in this area in 1938 was 382 acres with 339 acres in cultivation: 168 acres of wheat, 42 acres of grain sorghums, 29 acres of sweet sorghum and millet, 8 acres of sudan, 73 acres of summer fallow, and 3 acres restoration. The average farm had about nine head of milking Shorthorn, Holstein or Guernsey cows, one hog, 74 chickens, and three head of work stock.

The following farm organization is the committee's idea as to what the minimum sized family farm should be like:

Recommended Farm

Total land, acres		760	
Native pasture	60		
Cropland	700		
Wheat	400		
Summer fallow	150		
Barley	50		
Forage sorghums	20		
Grain sorghums	50		
Temporary pasture	30		

Livestock:

General purpose cows	10
Sows	2
Horses	2
Hens	125

Farming Equipment: Combine, tractor, Grain drill, plow, lister, truck, spring tooth harrow or field cultivator, platform binder or row binder and mower, cream separator, and wagon and other horse machinery.

Yields and Production Estimated by Committee

Wheat, 13 bu. per acre, total 5,200 bu.; 4,700 bu. sold, 500 bu. used.
Barley, 15 bu. per acre, total 750 bu.; 750 bu. used.
Grain sorghums, 15, bu. per acre, total 750 bu.; 750 bu. used.
Forage sorghums, 2 tons per acre, total 40 tons; 40 tons used.
10 Cows produce 9 calves; 8 sold, 1 used.
10 Cows produce 1,500 lbs. butterfat; 1,350 lbs. sold, 150 lbs. used.
2 Sows produce 2 litters each, 24 pigs; 21 pigs sold, 3 pigs used.
125 Hens produce 833 doz. eggs per year; 600 doz. sold, 233 doz. used.

Estimated Investment, Sales, and Expenses

Investment:

Land and improvements	$12,800.00
Livestock	692.50
Feeds	200.00
Equipment and machinery	2,415.00
Total investment	$16,107.50

Expenses:

Fuel, depreciation, and replacement on machinery	$1,200.00
Taxes	160.00
Labor	200.00
Miscellaneous	250.00
Supplemental feeds	100.00
Total expenses	$1,910.00

Sales:

Wheat, @ 60¢	$2,820.00
Butterfat, @ 20¢	270.00
Hogs, @ $15	315.00
Calves, @ $22	176.00
Eggs, @ 16¢	96.00
50 cockerels, @ 25¢	12.50
75 cull hens, @ 50¢	37.50
Total sales	$3,727.00

Summary:

Total sales	$3,727.00
Less expenses	1,910.00
Net cash	$1,817.00
Interest on inv. @ 5%	805.38
Net wages for operator and family	$1,011.62

Area 2E Land Use planning Committee:
Wm. Kulow - Dombey
*Paul Duerson - Dombey
Mrs. Clarence Ross - Liberal, Kansas
John R. King - Dombey
Russell Boates - Dombey

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AREA 3E

In addition to the problems listed in the county part of this report, too much wheat is a problem in this area. Farm operators generally have farmed too large a proportion of their farms to wheat for the good of the operator and the good of the land as well, particularly during recent years when erratic climatic conditions have prevented wheat income from being dependable. The committee recommended that the farms in this area approximate the acres or proportion of various crops as shown in the recommended farm for this area. In doing so, the acreage of wheat per farm and over the area as a whole would be reduced and the acreage of feed crops increased.

Since there is no high school in this area it is recommended that consideration be given to locating a high school to serve the southeast one-fourth of the county which pretty well takes in Area 3E.

The average size farm in this area in 1938 was 451 acres with 264 acres in cultivation: 132 acres of wheat, 22 acres grain sorghum, 32 acres of sweet sorghum and millet, 18 acres of Sudan, 11 acres of summer fallow, 10 acres restoration, and 98 acres range land. The average farm had about 19 head of dual purpose cows, two head of hogs, 54 chickens, and three head of work stock.

The farm below is the committee's idea as to what the minimum sized family farm should be like:

Recommended Farm

Total land, acres		800	Livestock:	
Native pasture		288	General purpose cows	10
Cropland to pasture		112	Beef	30
Cropland		400	Sows	2
Wheat	175		Horses	3
Grain sorghums	70		Hens	125
Forage sorghums	75			
Temp. pasture (Sudan)	80			

Farming equipment: Combine, tractor, grain drill, plow, lister, truck (pick-up), spring tooth harrow or field cultivator, platform binder or one-row binder and mower, and wagon and other horse machinery.

Yields and Production Estimated by Committee

Wheat, 10 bu. per acre, total 1,750 bu.; 1,350 bu. sold, 400 bu. used.
Grain sorghums, 12 bu. per acre, total 840 bu.; for feed.
Forage sorghums, 1.5 tons per acre, total 113 tons, for feed.
10 Cows raise 9 calves; 8 for sale, 1 used.
10 Cows produce 1,500 lbs. butterfat; 1,350 lbs. sold, 150 lbs. used.
30 beef cows raise 27 calves; for sale
2 sows, 2 litters each, 24 pigs; 21 sold, 3 used.
3 Mares will raise 2 colts for sale.
125 hens produce 758 doz. eggs; 600 doz. sold, 158 doz. used.

Estimated Investment, Sales, and Expenses

Investment:

Land and improvements	$10,000.00
Livestock	1,992.50
Feeds	200.00
Equipment and machinery	1,927.50
Total investment	$14,120.00

Expenses:

Fuel, depreciation and replacement on mach'y.	$800.00
Taxes	150.00
Labor	180.00
Miscellaneous	200.00
Supplemental feeds	100.00
Total expenses	$1,430.00

Sales:

Wheat, @ 60¢	$810.00
Colts	75.00
Cattle and calves	1,050.00
Hogs, @ $15	315.00
Butterfat, @ 20¢	270.00
Eggs, @ 16¢	96.00
Cockerels @ 25¢	12.50
Cull hens @ 50¢	37.00
	$2,665.50

Summary:

Total sales	$2,665.50
Less expenses	1,430.00
Net cash	$1,235.50
Int. @ 5% on inv.	706.00
Net wages for operator and family	$529.50

Area 3E Land use Planning Committee:
Asa Vandeburgh - Beaver
C. H. V. Earl - Logan
Amos Pittman - Beaver
Mrs. J. H. Jett - Logan
Mrs. H. J. Whitaker - Logan

AREA 4A

Land now being cultivated which is unsuitable for cultivation is a problem in this area because much of the land which is now cultivated was broken out because of favorable wheat prices during the war. It is land not suitable for cultivation and it is recommended that it be retired from

cultivation as rapidly as it is practical to do so and used for grazing. It is also recommended that the Woodward Experiment Station continue its work on methods of restoring farm land to grass.

Flood damage is a problem which causes bridges to be washed out and silt deposited on bottom land adjacent to some of the small creeks and rivers. Also river bottom lands are infested with poisonous weeds, particularly cockleburs which in 1935 killed an estimated $10,000 worth of cattle in this area alone. It is recommended that small dams be built up stream on the Beaver and Cimarron rivers and that ponds be constructed on the larger tributaries to these streams.

Depletion of pasture lands is a problem due to extremely low rainfall, high winds and over-grazing during recent years. It is recommended that one-fourth of the pasture land be deferred grazed annually and that pasture not be grazed heavier than 16 acres per animal unit. Also contour furrowing of land tight enough to maintain short grasses is recommended.

Prairie dogs and prickly pear are problems in this area. Enforcement of the State Rodent Control Law is recommended to help in getting rid of prairie dogs. Prickly pear should be eradicated by farm operators in the area.

The average size farm in this area in 1938 was 551 acres with 133 acres in cultivation: 21 acres of wheat, 40 acres of grain sorghum, 28 acres of sweet sorghum and millet, 9 acres of Sudan, 4 acres of summer fallow, 40 acres restoration, and 255 acres of range land. The average farm had about 82 head of cattle, 2 head of hogs, 85 chickens, and 5 head of horses or mules.

The following farm is the committee's idea as to what the minimum sized family farm should be like:

Recommended Farm

Total land, acres		4,600	
Native pasture and waste		3,163	
Cropland to pasture		1,037	
Cropland		400	
Grain sorghums	50		
Forage sorghums	80		
Temporary pasture (Sudan)	270		

Livestock:	
Range cows	200
Heifers (yearlings)	20
Heifers (2-year)	20
Bulls	6
Horses (4 mares)	9
Sows	1
Hens	100
Milk cows	2

Farming Equipment: Lister, harrow, cultivator, grain drill, platform binder or row binder and mower, saddles, and wagon and other horse machinery

Yields and Production Estimated by Committee

Grain sorghum, 15 bu. per acre, total 750 bu. for feed.
Forage sorghums, 1.75 tons per acre, total 140 tons, for feed.
200 Cows raise 170 calves; 150 sold, 20 for replacements.
20 old cows to be sold each year.
2 milk cows produce sufficient dairy products for home use.
4 Mares raise 2 colts, for sale
1 Sow, 2 litters, 12 pigs; 6 to be sold, 6 used.
100 hens produce 666 doz. eggs; 500 doz. sold, 166 doz. used.

Estimated Investment, Sales, and Expenses

Investment:	
Land and improvements	$27,600.00
Livestock	10,355.00
Feeds	100.00
Equipment and machinery	500.00
Total investment	$38,555.00

Sales:	
Calves, @ $25	$3,750.00
Cows, @ $15	300.00
Colts, @ $30	60.00
Hogs, @ $15	90.00
Eggs, @ 16¢	80.00
Cull hens, @ 50¢	37.50
Total Sales	$4,317.50

Expenses:	
Feed bill on cattle and other livestock	$1,000.00
Taxes	275.00
Labor	250.00
Supplemental feed	40.00
Miscellaneous	150.00
Total expenses	$1,715.00

Summary:	
Total sales	$4,317.50
Less expenses	1,715.00
Net cash	$2,602.50
Int. @ 5% on inv.	1,927.75
Net wages for operator and family	$ 674.75

Area 4A Land Use Planning Committee:
Wallace Anshutz - Nye Kansas
Otto Barby - Knowles
Otto C. Barby - Beaver
*Mrs. Pearl Maple - Mocane

AREA 5E

In addition to the problems described in the county part of this report, too much wheat is a problem in this area. It is recommended that farm operators use the recommended farm for the area as a guide in adjusting their farm program away from wheat toward more feed crops and livestock.

The average size farm in this area in 1938 was 339 acres with 254 acres in cultivation: 131 acres of wheat, 8 acres of grain sorghum, 18 acres of sweet sorghum and millet, 12 acres of sudan, 12 acres of summer fallow, and three acres restoration. The average farm has 13 head of milking cows, three head of hogs, 70 chickens, and three head of work stock.

The farm below is the committee's idea as to what the minimum sized family farm should be like:

Recommended Farm

Total land, acres		760	Livestock:	
Native grass		168	General purpose cows	20
Cropland to pasture		75	Sows	4
Waste		17	Mares	4
Cropland		500	Hens	125
Wheat	200			
Grain sorghums	80		Farming equipment: Combine, tractor, plow, grain drill, lister, truck, spring tooth harrow or field cultivator, platform binder or 1-row binder and mower, cream separator, and wagon and other horse machinery.	
Summer fallow	100			
Forage sorghums	50			
Temporary past. (Sudan)	25			
Alfalfa and sweet clover	45			

Yields and Production Estimated by Committee

Wheat, 12 bu. per acre, total 2,400 bu.; 2,200 bu. sold, 200 bu. used.
Grain sorghum, 15 bu. per acre, total 1,200 bu., all for feed.
Forage sorghums, 1.5 tons per acre, total 75 tons, all for feed.
Temporary pasture would carry one cow per acre for 3.5 months.
Sweet clover and alfalfa would furnish supplementary feed and pasture.
Native pasture would carry one cow on 10 acres for six months.
4 Sows raise 2 litters of pigs each, 48 pigs; 45 sold, 3 used.
20 Cows raise 18 calves; 17 sold, 1 used.
20 Cows produce 1,500 lbs. butterfat; 1,350 lbs. sold, 150 lbs. used.
125 Hens produce a total of 833 doz. eggs; 600 doz. sold, 233 doz. used.
50 Cockerels, all to be sold.
75 cull hens, all to be sold.
4 Mares raise 2 colts, to be sold.

Estimated Investment, Sales, and Expenses

Investment:

Land and Improvements	$11,300.00
Livestock	1,322.00
Feeds	200.00
Equipment and machinery	2,415.00
Total investment	$15,237.00

Expenses:

Fuel, depreciation and replacements on machinery	$800.00
Taxes	175.00
Labor	180.00
Miscellaneous	200.00
Supplemental feeds	100.00
Total expenses	$1,455.00

Sales:

Wheat, @ 60¢	$1,320.00
Butterfat, @ 20¢	270.00
Hogs, @ $15	675.00
Calves, @ $25.17	428.00
Colts, @ $50	100.00
Eggs, @ 16¢	96.00
50 Cockerels, @ 25¢	12.50
75 cull hens, @ 50¢	37.50
Total sales	$2,939.00

Summary:

Total sales	$2,939.00
Less expenses	1,455.00
Net cash	$1,484.00
Less int. on inv. @ 5%	762.00
Net wages for operator and his family	$ 722.00

Area 5E Land Use Planning Committee;

W. O. Rather - Gate
T. S. Whisenhunt - Gate
Dave Wolf - Gate
Mrs. Elva Whisenhunt - Gate
Mrs. W. O. Rathers - Gate
*Mr. Ralph Barby - Knowles

AREA 6E

In addition to the problems listed for the county as a whole, too much wheat is a problem for which the committee recommends operators following as closely as possible the recommended farm for the area which is shown below; this would mean adjusting away from wheat toward more feed crops and livestock.

Small school district is a problem. Forgan school district should be enlarged to take in more territory to be able to provide better school facilities for more people.

The average size farm in this area in 1938 was 324 acres with 269 acres in cultivation: 81 acres of wheat, 88 acres of grain sorghums, 30 acres sweet sorghum or millet, 13 acres of Sudan, 38 acres of summer fallow, and 11 acres restoration. The average farm has 12 head of cows, 1 hog, 75 chickens, and three head of work stock.

The following farm is the committee's idea as to what a minimum sized family farm should be like:

Recommended Farm

Total land, acres		800	Livestock:		
Pasture and waste		160	General purpose cows		30
Cropland		640	(10 to be milked)		
Wheat	200		Sows		3
Summer fallow	100		Horses		3
Grain sorghums	180		Hens		125
Forage sorghums	60				
Temporary pasture	100				

Farming Equipment: Combine, tractor, grain drill, plow, lister, pick-up, cultivator, platform binder, cream separator, and wagon and other horse machinery

Yields and Production Estimated by Committee

Wheat, 11 bu. per acre, total 2,200 bu.; 2,000 bu. sold, 200 bu. used.
Grain sorghum, 15 bu. per acre, total 2,700 bu.; 600 bu. sold, and the balance used.
Forage sorghums, 2 tons per acre, total 120 tons, all for feed
Temporary pasture will carry 1 animal unit for each 2 acres for 3.5 months
30 Cows will raise 28 calves; 27 to be sold, 1 used.
10 Cows will produce 1,350 lbs. butterfat, to be sold, in addition to supplying the family
3 Sows will raise 36 pigs; 33 to be sold, 3 used.
125 Hens will produce 600 doz. eggs, to be sold, in addition to supplying the family

Estimated Investment, Sales, and Expenses

Investment:		Expenses:	
Land and Improvements	$7,200.00	Labor	$250.00
Livestock	1,507.00	Taxes	200.00
Feeds	250.00	Miscellaneous	250.00
Equipment and machinery	2,092.00	Supplies	100.00
Total investment	$11,049.00	Fuel	400.00
		Replacements and repairs on machinery	250.00
Sales:		Depreciation	400.00
		Total expenses	$1,850.00
Wheat, @ 60¢	$1,200.00		
Hogs, @ $15	495.00		
Calves, @ $30	810.00	Summary:	
Eggs, @ 16¢	96.00	Total sales	$3,257.00
50 Cockerels, @ 25¢	12.50	Less expenses	1,850.00
75 cull hens, @ 50¢	37.50	Net cash	$1,407.00
Butterfat, @ 20¢	270.00	Less int. on inv. 5%	552.00
Grain sorghums, @ 56¢	336.00	Net wages to operator	$ 855.00
Total sales	$3,257.00		

Area 6E Land Use Planning Committee:

Mrs. Minnie Mayo
J. D. Bilbo
*Frank Underwood
*Floyd Nichols

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